

UNITED STATES DEPARTMENT OF THE INTERIOR
 MINERALS MANAGEMENT SERVICE
 GULF OF MEXICO REGION
ACCIDENT INVESTIGATION REPORT

1. OCCURRED

DATE: **18-JUL-2006** TIME: **0815** HOURS

2. OPERATOR: **Freeport-McMoRan Inc.**

REPRESENTATIVE: **Ed Budrow**
 TELEPHONE: **(504) 586-5006**

CONTRACTOR:
 REPRESENTATIVE:
 TELEPHONE:

- STRUCTURAL DAMAGE
- CRANE
- OTHER LIFTING DEVICE
- DAMAGED/DISABLED SAFETY SYS.
- INCIDENT >\$25K
- H2S/15MIN./20PPM
- REQUIRED MUSTER
- SHUTDOWN FROM GAS RELEASE
- OTHER

3. OPERATOR/CONTRACTOR REPRESENTATIVE/SUPERVISOR
 ON SITE AT TIME OF INCIDENT:

6. OPERATION:

4. LEASE: **G12362**

AREA: **MP** LATITUDE:
 BLOCK: **299** LONGITUDE:

- PRODUCTION
- DRILLING
- WORKOVER
- COMPLETION
- HELICOPTER
- MOTOR VESSEL
- PIPELINE SEGMENT NO.
- OTHER

5. PLATFORM: **FP**
 RIG NAME:

6. ACTIVITY: EXPLORATION(POE)
 DEVELOPMENT/PRODUCTION
 (DOCD/POD)

8. CAUSE:

7. TYPE:

- HISTORIC INJURY
 - REQUIRED EVACUATION
 - LTA (1-3 days)
 - LTA (>3 days)
 - RW/JT (1-3 days)
 - RW/JT (>3 days)
 - Other Injury

- FATALITY
- POLLUTION
- FIRE
- EXPLOSION

- LWC HISTORIC BLOWOUT
- UNDERGROUND
 - SURFACE
 - DEVERTER
 - SURFACE EQUIPMENT FAILURE OR PROCEDURES

COLLISION HISTORIC >\$25K <=\$25K

- EQUIPMENT FAILURE
- HUMAN ERROR
- EXTERNAL DAMAGE
- SLIP/TRIP/FALL
- WEATHER RELATED
- LEAK
- UPSET H2O TREATING
- OVERBOARD DRILLING FLUID
- OTHER _____

9. WATER DEPTH: **230** FT.

10. DISTANCE FROM SHORE: **15** MI.

11. WIND DIRECTION: **W**
 SPEED: **10** M.P.H.

12. CURRENT DIRECTION: **SE**
 SPEED: **5** M.P.H.

13. SEA STATE: **2** FT.

17. DESCRIBE IN SEQUENCE HOW ACCIDENT HAPPENED:

Time of spill recorded on the spill report: Recorded as "unknown".

Time of spill report: Recorded on the report as 8:15 AM.

Observed by the field foreman:

Quantity discharged recorded on the report: Estimated 3.5 bbls.

Spill source and cause: Unknown at the time of the report; as recorded on the report.

Length and time discharge occurred: Recorded on the spill report as unknown.

Size of slick: Width: 1320 yards, Length: 3520 yards.

Description of slick: Rainbow - going Southeast.

Performed flyover - by field foreman - estimated spill 2 X 3/4 miles, slightly colored (rainbow) at 8:00 AM.

FINDINGS:

Operators checked to find no excessive oil found in the float cell or overboard water line trap after the spill was observed.

Noted by the field superintendent, the operators on duty on the night of the spill did not have extensive experience on the MP 299 FP facility.

Had dive boat come over to the facility. The incoming and oil sales out going pipelines were pressured up with no leaks detected.

Divers found fresh oil at 150 foot depth, where the pipelines cross each other.

Chevron's overboard water discharges at MP 299 FP at the depth of 174 feet.

Chevron produces approximately 10,000 barrels of water per day.

FMI MP 299FF produces approximately 8,000 barrels of water per day.

Prior to the oil spill, there was a surge in production rate of fluid from Chevron's incoming pipeline.

CPI discharge water handling vessel was being monitored by an operator due to high oil level in the vessel.

A LSH did not shut in the facility. During the high activity, it was not observed whether the LSH was in by pass. An operator was at the master panel monitoring the panel.

Facility had to be manually shut in due to the upset not being able to be controlled and corrected without an oil spill.

Observed the LSH on the vessel installed approximately 4 inches from the top of the vessel.

Observed the sight glass installed at the level alarm difficult to see during the daylight hours; thus probably even more so at night, when the actual spill of July 18th occurred.

In tracing piping, found that the CPI oil bucket pump could not overcome the inflow of oil coming into the CPI, found the FSV installed in the discharge line of the CPI oil bucket pump discharge line to be leaking. This line was found to be common with other lines which could contribute to oil circulation and back flow to the vessel due to the FSV failing. Also found this line to be common with a four inch diverter line from the oil lact skid; which is blocked off at the lact skid. The concern in this issue is a valve at a header installed on the top of the produced oil tanks was found open which should have been closed; causing this line to become common with the CPI pump line; which could cause back flow circulation even when the facility is shut in for such an upset.

In tracing piping, a 1 inch buy back gas line was also found to be tied in the system which is common with the CPI oil bucket pump discharge line, has no FSV installed; which also is probable cause of oil circulation even after facility shut in, due to these lines being common.

All observations indicate these listed probabilities:

1. Excess oil in the Verisep (CPI), the oil bucket pump not being able to overcome the incoming oil , excessive oil in the vessel forcing the water level out of the vessel causing the oil to flow through the water discharge line and eventually into the overboard water line and down the down comer.
2. Oil being found by the divers at the 150 foot level of the structure is a probable indication that oil escaped from the float cell down comer line.
3. The factor of some inexperience of the operators with the facility, resulting in their not seeing the factors listed above, had some impact in the resulting in the spill.

18. LIST THE PROBABLE CAUSE(S) OF ACCIDENT:

Surges in production rate of fluids from Chevron's incoming pipeline caused less retention time for oil to break free of water in the Bulk Separator. This allowed excessive oil development in the CPI which in turn, flowed to the Float Cell and discharged through an 8" overboard produced water discharge line located 150 ft below sea level.

The 8" overboard line had a buildup of hydrocarbons/oil that accumulated over time that was flushed out of the overboard line due to increase fluid rate.

19. LIST THE CONTRIBUTING CAUSE(S) OF ACCIDENT:

The difficulty of effectively monitoring the CPI water handling vessel at night, due the way the vessel sight glass is set up.

The LSH component is installed only approximately 4 to 6 inches or so from the very top of the CPI, resulting in not much room for error during a vessel LSH upset.

Some inexperience level of the operators on duty the night of the spill occurrence.

Excessive oil inflow into the CPI vessel causing the oil to overcome the vessel, the oil bucket pump not being able to overcome the oil inflow into the vessel, the excessive oil coming in to the vessel, forcing the water level down in the CPI, the water level being overcome by the oil in the float cell forcing oil down the water discharge down comer into the Gulf.

The FSV on the CPI oil bucket pump leaking allowing backflow.

If the LSH on the CPI did not shut in the facility; which it did not on the night of the spill as stated in the interviews, the upset could have gone unobserved if the operators on tower where of not sufficient experience with facility operations. The operators on duty, have not been on the facility for enough time to be sufficiently experienced with such a complex operation to fully be aware of such a facility's full process operation.

The gas buy back line being installed in this common piping system with no FSV in line.

20. LIST THE ADDITIONAL INFORMATION:

21. PROPERTY DAMAGED:

NATURE OF DAMAGE:

Produced Oil

Lost Overboard

ESTIMATED AMOUNT (TOTAL):

\$245

22. RECOMMENDATIONS TO PREVENT RECURRENCE NARRATIVE:

No Recommendations to MMS.

The New Orleans District concurs with the Operator's recommendation to prevent recurrence.

Look at the possibility of lowering the LSH on the CPI at a level lower than it is from the top of the vessel, readjust the weir plates, to lower the entire vessel level to give more response time during such an upset.

Install a new FSV on the discharge line of the oil bucket pump of the CPI to replace the one which is leaking.

Below deck, on a recent pipe installed on the float cell pump discharge line, there is a 2 inch spool piece where the FSV recommended can be installed.

Reconfigure or install a better means of observing the level in the CPI, which should be easily visible both day and night.

Assure that a FSV is installed in the gas buy back line, due to these lines being common and an FSV is in place to prevent back flow during a facility shut in.

Assure that the operators of the facility are of sufficient knowledge of the piping on the facility and that they verify that the facility piping schematics, safe chart, and safety systems perform as they must perform.

Corrective Action Being Implemented:

The field superintendent and the field foremen will assure that operators of sufficient experience with the facility will be placed in day and night operations positions to assure the experience level is sufficient to address such upsets and prevent such occurrence of oil spills. A reorganization of personnel in between the work shifts has been implemented to balance the experience base of the entire workforce.

FSVs are being installed on gas buy-back line and CPI oil bucket discharge line.

A new sight glass will be installed on the CPI to provide better visibility.

The operating level and the LSH will be lowered on the CPI to provide a greater capacity to handle flow fluctuations without having an oil carryover.

23. POSSIBLE OCS VIOLATIONS RELATED TO ACCIDENT: **NO**

24. SPECIFY VIOLATIONS DIRECTLY OR INDIRECTLY CONTRIBUTING. NARRATIVE:

E-100 Pollution Event 3.5 bbls

25. DATE OF ONSITE INVESTIGATION:

18-JUL-2006

26. ONSITE TEAM MEMBERS:

Phil McLean /

27. OPERATOR REPORT ON FILE: **YES**

29. ACCIDENT INVESTIGATION

PANEL FORMED: **NO**

OCS REPORT:

30. DISTRICT SUPERVISOR:

Troy Trosclair

APPROVED

DATE: **20-NOV-2006**